	Application No.	Applicant(s)
Notice of Allowability	09/823,682	ARQUIE ET AL.
	Examiner	Art Unit	
	X L Bautista	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *amendment filed on 6/21/04*.

2. ☒ The allowed claim(s) is/are *1,2,4 and 7-15*.

3. ☒ The drawings filed on *30 March 2001* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some*   c)☐ None of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a)☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1)☐ hereto or 2)☐ to Paper No./Mail Date _____ .

    (b)☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .
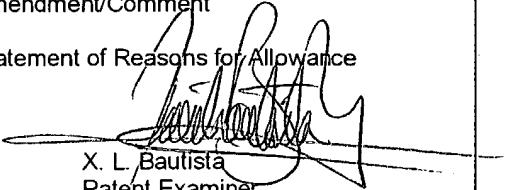
X. L. Bautista
Patent Examiner
AU 2179

DETAILED ACTION

EXAMINER'S AMENDMENT

I.   An examiner's amendment to the record appears below. Should the changes and/or additions be

unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure

consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Kent

Lembke on August 6, 2004.

2.   The application has been amended as follows:

Claims 16, 18, and 19 have been canceled in accordance with applicant's directions in the

telephone interview.

Reasons for Allowance

3.   Claims 1, 2, 4, and 7-15 are allowed.

4.   The following is an examiner's statement of reasons for allowance:

Independent claims 1, 14, and 15 have been carefully considered. Prior art of record fails to teach

the combination of claimed elements including a method for displaying connection information in a

network topology display; the topology having multiple connections between nodes and displaying

different connection endpoint symbols adjacent its corresponding node; the symbol indicating existence of

the multiple connections at every node; displaying a first connection endpoint symbol if there is a single

connection between the nodes; and displaying a second connection endpoint symbol if there are multiple

connections between the nodes; the first connection endpoint symbol being different from the second

connection endpoint symbol.

McIntyre et al (6,229,538 B1) discloses a method for providing port-centric graphic

representations for network controllers. The system monitors the status of each network port and displays

multiple port-specific graphic representations of the configuration and status of each port. For example,

the representations are displayed to indicate normal operation, cable fault, hardware failure, and even

uninstalled ports. McIntyre teaches that a symbol is displayed for every port to indicate its state but fails

to teach or suggest that only one symbol is displayed to indicate the existence of multiple ports.

Moran et al (US 5,590,119) discloses a telecommunications network having a plurality of

intelligent nodes or switches interconnected by a plurality of spans and links. The method enables

selection of alternate routes for restoring traffic disrupted between two adjacent nodes. Each node includes

a number of ports identified as W (working port) or S (spare port); the ports provide input/output

connections between each of the nodes and its adjacent nodes. Moran teaches multiple links connected to the multiple ports of each node but fails to teach or suggest that only one symbol may be displayed next to each node to indicate that multiple links are connected to every node.

Van de Lavoir et al (US 5,408,603) discloses a system and method for graphically displaying the flow of process control information. The system displays graphical icons such as a delay timer icon to illustrate the sequence by which the OFF time is delayed; diamond-shaped step icons to show the respective FALSE and TRUE states; a CALL icon to denote that a program flow is being directed or routed to a called subroutine or function; a hidden pipe icon is used to reduce the complexity of the displayed image and represent or hide a complex relationship beneath, the user only has to select the icon and the program then displays the operators for which the icon was substituted.

Besaw et al (US 5,276,789) discloses a system for automatically laying and graphically displaying the topology of a computer network system. The system includes an internet view of a network in graphical form having connected clusters, and a network view having connected segments. The views display different icons to represent different types of elements of the computer network.

Bates et al (US 6,072,490) discloses a user interface for graphically displaying linked records with node display elements representing individual records, and optional link display elements representing the links between the nodes. The invention includes retrieve progress display elements that may take different forms such as a pie-shaped indicator coupling a node display element being retrieved to another linking node display element. A retrieve progress display element may further include an alphanumeric indicator that provides a percentage completion figure, a time to completion, or elapsed time indication.

Paterson et al (US 6,078,739) discloses a method for representing, accessing, inputting, and

monitoring parameters of objects within a simulation model. The method includes numerous icons that

are used to represent objects, inputs, pipes, links, and labels associated with these icons. The method

discloses a set of link representations that can be selected by a model builder to represent a relationship

condition that exists between two objects, represented by nodes within the simulation model. Each link

representation is associated with and represents a different relationship condition.

Mayo et al (US 5,751,965) discloses a method for monitoring and displaying the status of

connections or other relationships in a computer network. The method determines connection status

between bridges and networks and displays a color/status for each connection. Appropriate colors and

shadings indicate that the status of the connection is good, bad, unknown, bad or disabled, known to be

disabled, etc.

Leshem et al (US 6,470,383 B1) discloses a method for facilitating the management and analysis

of Web sites. The interface displays lines interconnecting nodes (URL icons) to represent links between

URLs. Annotations (page titles, filenames, etc.) are displayed below the associated nodes when the user

zooms in, and the URL (address) of a node is displayed when the mouse cursor is positioned over the

corresponding icon.

Cisco Systems Inc. (book entitled "Monitoring a LightStream 2020 Switch") discloses a graphical

display of individual LS2020 switches, cards, and ports. The monitor uses color to indicate the status of

various entities. Cisco teaches a topology map application for displaying a map that represents the actual

topology of an LS2020 network. The map is a set of related objects, symbols, and submaps that provide a

graphical and hierarchical presentation of the network. Cisco teaches multiple connections represented by

meta-connection symbols (numeric indication). The symbol for a meta-connection is <n>, where n is the

number of connections being represented. Cisco illustrates a trunk between 1s-alpha2 and 1s-alpha-np

nodes, which actually represents two trunks, as indicated by the meta-connection symbol <2>.

Van de Lavoir, Besaw et al, Bates et al, Paterson et al, Mayo et al, Leshem et al, and Cisco Systems

fail to teach or suggest a method for obtaining information about a first node interconnected with a second

node; displaying a first connection endpoint symbol adjacent to both the first node and second node if

there is a single connection between the nodes; and displaying a second connection endpoint symbol

adjacent to both the first and second nodes if there are multiple connections between the nodes; wherein

the second endpoint symbol differs from the first connection endpoint symbol and is configured to

indicate existence of the multiple connections at the nodes.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6.   Any comments considered necessary by applicant must be submitted no later than the payment of

the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions

should be clearly labeled "Comments on Statement of Reasons for Allowance."

7.   Any inquiry concerning this communication or earlier communications from the examiner should

be directed to X L Bautista whose telephone number is (703) 305-3921. The examiner can normally be

reached on Monday-Thursday (8:00-18:00), Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather

Herndon can be reached on (703) 308-5186. The fax phone number for the organization where this

application or proceeding is assigned is 703-872-9306. .

8.   Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained

from either Private PAIR or Public PAIR. Status information for unpublished applications is available

through Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).
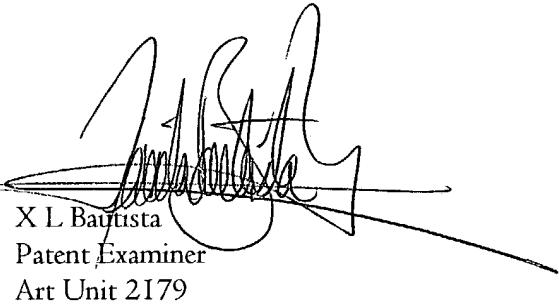
X L Bautista
Patent Examiner
Art Unit 2179

xlb
06 August 2004